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AUTHOR Drazen, Shelley
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ABSTRACT

This draft report examines patterns in the allocation and distribution of federal compensatory education (Chapter 1) funds in New York State school districts. To preserve local control over education, Chapter 1 aid for disadvantaged students is distributed through a three-tiered system involving a federal allotment formula, state distributions, and school district distributions. However, local decisions lead to considerable variation in actual allocations of Chapter 1 resources for individual students. Results of the distributional system are that the majority of students receiving Chapter 1 services are not poor, and that small districts, rather than wealthy ones, tend to be unserved. This study examines the New York State Chapter 1 situation in terms of the following factors: (1) state and district allocation practices; (2) financial resources from federal, state, and local levels; (3) demographic factors including population, poverty, and population density; and (4) decisions at the local level. Data are analyzed individually and then combined to form a multiple regression model. Among the study's findings are that compensatory education program size is not closely linked to individual students' educational need, and that high poverty districts seem to run smaller, more expensive programs in New York State. The report includes two tables. A list of 41 references is appended. (AF)

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DRAFT

THE ALLOCATION AND DISTRIBUTION OF CHAPTER 1 FUNDS in NEW YORK STATE SCHOOL DISTRICTS

Shelley Drazen

Department of Education

Cornell University

March 27, 1989

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Background

Title I of the Elementary and Secondary Education Act [ESEA] of 1965 (now Chapter 1 of the Educational Improvement and Consolidation Act [ECIA] of 1981) was enacted by Congress

> In recognition of the special educational needs of children of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs...To provide financial assistance...to local educational agencies serving areas with concentrations of children from low income families to expand and improve their educational programs by various means which contribute particularly to meeting the special educational needs of educationally deprived children. (Title I, ESEA, Section 101)

The major concerns of Congress were "the impact of poverty and deprivation upon youngsters in the low-standard school districts of the country and in rural and urban slums" (Senator Wayne Morse, as quoted in Bailey and Mosher, p. 27).

In an attempt to preserve local control over education, a three-tiered distribution system was developed.

The Federal Formula:

Federal allotments are calculated by formula for each county in the country. The amount is directly proportional to the number of poor children in the county, as counted by the census and Aid for Dependent Children [AFDC] figures, multiplied by the average per pupil expenditure in the state that contains the county. The allotted money is then allocated and transferred to state educational agencies.

Census data is updated only every ten years, however. This means that children counted may not correspond to real people. Also, the allotment of equal funds per eligible student in every district means that much money goes to non-poor areas.

State Distributions:

Where school districts are coterminous with counties, the money is then distributed according to the federal calculations. Where districts do not coincide with county boundaries, however, the state is allowed considerable discretion in determining how much money each district will receive. Forty-six of the fifty states have school districts not matching county boundaries; thus most Chapter 1 funds are subject to state discretion (73% of the funds in 1983-84, according to Stonehill and Anderson.

About half of the states use the federal formula to calculate allocations. Most of the remaining states base allocations on calculations of the number of poor children by other means, although some use local agreements to distribute funds. Most then distribute funds in direct proportion to the resulting counts, but the law permits districts with declining numbers of poor pupils to receive at least 85% of the previous

year's funding. These "save-harmless" districts may therefore receive more money per eligible student than the state standard.

New York State uses the federal formula to determine subcounty allocations. However, since the passage of the Federal Information and Privacy Act in the late 1970s, the state does not have access to AFDC data, and so counts of poor children are now based on census data alone (Personal communication with state officials).

State-level discretion, plus the cost variations built into the federal formula, has led to differences between states in the amount school districts receive for each child counted by the formula. Average district allocations ranged from $122 (Utah) to $358 (Missouri) for each child counted as eligible by federal formula in 1977 (Smith, Gutmann, and Paller). Little is known about how this state-level discretion affects equity between poor districts in different states or counties. For example, it appears unlikely that districts with similar poverty rates, but located in different states or counties, will receive equivalent amounts of Chapter 1 money. Statistics from the Subcounty Allocation Study indicate that districts with child poverty rates from 20% to 100% receive an average of $124 (Utah) to $406 (Missouri) per eligible child; however, specific data on the effects of these differences are lacking.

School District Distributions

Once school districts receive the money, they follow federal guidelines which allow considerable flexibility in the selection of schools and students to participate in Chapter 1 programs. Guidelines to be considered have varied somewhat over the history of Title I/Chapter 1. The 1978 Amendments to Title I specified that money had to be "concentrated" among the poorest attendance areas in the district; however, this requirement was relaxed when Title I became Chapter 1 in 1981. (For further details on current requirements, see Birman, et. al., pp. 33-37).

Currently, there is much flexibility in how many schools and students are selected within these guidelines. School districts' policies vary widely. Research has shown several patterns. Goertz, Milne, and Gaffney's study of 17 districts nationwide showed that only one used poverty as the primary criterion for allocations to schools within the district. Fifteen ranked educational need in their different schools, as measured by the percentage of children who scored below a standard on standardized tests, or by Chapter 1 caseloads. Caseloads tended to be randomly distributed with respect to poverty rate, achievement, and concentration of Chapter 1 students in the school. One district distributed money uniformly to each school. Some districts mix procedures or follow different procedures for different projects, e.g. having all elementary schools have equal money for reading and math programs, but having only certain secondary schools with reading and none with math programs.

Within each school, Chapter 1 participants are usually selected on the basis of educational criteria, e.g. scores on

standardized tests or teacher recommendation. Some schools also use economic measures such as eligibility for federal lunch subsidies. Variability is built into this part of the system: children served in high-achieving schools would not be served in others where overall achievement levels are lower.

School and student selection procedures determine how many children will be served by the program, and how much and what kind of service they will receive. One measure of different service levels can be the amount of money spent per child: The amount of money may determine whether the child is serviced by a teacher or an aide; the teacher's or aide's caseload; how many different subjects or programs will be offered (e.g. reading and math or just reading); the level of achievement below which aid will be offered; how much time the child will spend in Chapter 1 programs; and quality and quantity of materials used.

Local decisions may therefore lead to considerable variation in actual resources for individual students in Chapter 1 programs within states or even within districts. For example, in New York State, the funds allocated per eligible student are equal in each district. However, local decisions about how many schools and students should be served within the district produce programs which spend from about $500 to well over $1000 per participating student. As well, the number of students actually participating in Chapter 1 programs in the state ranges from 50 to over 100%[1] of the number counted as eligible by the state formula (records of the New York State Education Department, 1985-1988).

Most districts face a choice between serving large numbers of children, and giving intensive service. One reason is suggested by a study prepared for the U.S. House Committee on Education and Labor (1987), which concluded that the average program cost of $731 per student was not offset by the average federal allocation of $613 per child (pp. 16,20). Therefore, eligible children are not receiving services "primarily because resources are inadequate to serve all eligible children" (p. 16). Therefore, services are frequently concentrated on a limited number of schools and certain grades in those schools.

Which schools and grades are to be served is decided at least partly by current research and the educational philosophy of the district. For example, a belief in the merits of early intervention will lead to districts concentrating on pre-kindergarten and early elementary programs. Research has

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[1]. It is possible that over 100% of those counted by the formula may need services for the following reasons: Children counted as eligible by the census are not necessarily of school age, or residing in the district, several years later. Additional poor children, not counted by the census, may have started school or moved into the district in the interim, as well. Therefore, a district may have a different number of disadvantaged children than the number calculated. Also, school-wide programs serve children who were not counted originally.

supported this philosophy. The House Committee on Education and Labor found that 75 to 95% of all children served were in grades 1 through 6 (p. 20). Goertz, Milne, and Gaffney reported that most districts serviced elementary over secondary students, and pre-kindergarten and English as a Second Language programs over reading and math.

The availability of extra local revenues or state aid can also make a difference in how federal money is used. In New York State, state and local contributions to the state compensatory education program, Pupils with Special Needs [PSEN], are merged with Chapter 1 money at the building level. Therefore, a larger number of students can be served or programs intensified.

The National Assessment of Chapter 1, done by the U.S. Office of Educational Research and Improvement [OERI] (Birman, et. al., 1987) found that about 60% of public schools in the U.S. provide Chapter 1 services, which translates into 75% of the elementary and 36% of middle and secondary schools (p. 16). Nationwide, 13% of all elementary schools with the highest poverty rates do not participate in Chapter 1; about half of these have state-funded compensatory education. Districts usually select schools with greater poverty than the district average, as per the law, but again, local preference plays a large part in the selection process. In low-poverty districts, the highest poverty attendance areas do not have much poverty; only 12% of poor schools are in non-poor districts (p. 27). Similarly, many poor districts contain only poor schools. Hence there are usually few clear cut distinctions on which to base differential allocations. The National Assessment found that high-poverty districts tended to concentrate services in the poorest schools, leaving many others unserved in these districts.

About half of all Chapter 1 districts do not need to make school selection choices because they are too small. In these cases, districts can still decide which students they wish to service, so the range in number of participants varies widely in these districts as well.

Vescera, Collins, Warledo, and Mitchell found that in the mid-1970s, central cities served greater percentages of their students, spent more money per Title I participant, and received high levels of Title I funds relative to other districts. Rural areas served smaller percentages of their students and generally received rather small amounts of Title I money. In New York State, districts receiving more Title I money had some tendency to receive more state compensatory education (PSEN) money, as well as more state general aid. They had a very weak tendency to be property-poor, but tax rates showed no consistent trend.

The variations shown above may not actually reduce equity between children in different districts, however, because of other factors. A program's cost does not determine its effectiveness. Chapter 1 distributions may be concentrated on fewer students in districts receiving large amounts of money from state analogues to Chapter 1, since state programs will serve many Chapter 1-eligible students in these districts. Districts

with less educational need may serve a relatively higher percentage of their eligible students. Previous research has rarely focused on these issues, and the few studies done have yielded conflicting results. Other factors involved may include demographic characteristics: The range and distribution of poverty of the district or state may determine formula calculations providing for more or less money than what is actually needed. Financial considerations, such as the availability of other state and local revenues, may determine how many can be served, as mentioned above. Differential allotments arising from the use of state average per pupil expenditures in the federal formula can add or subtract from the amount available, and organizational characteristics, such as administrative structure of the school or district, may determine whether only one school, or the whole district receives service. Educational culture, e.g. what programs are deemed most important by local taxpayers, and hence, the school board, may determine whether compensatory education is a priority and receives local funding to add to state and federal programs. Local policies may be a function as well of state decisions. No research has shown how all these factors interact, however.

The above discussion indicates that the nature of the three-tiered distribution system makes conflicts between the levels unavoidable, and programs frequently appear to operate at cross-purposes to the stated intention of the law. The results of the distributional system are that over 90% of all school districts now receive Chapter 1 aid, and the majority of students receiving Chapter 1 services are not poor. Contrary to expectations, unserved districts tend to be very small, rather than wealthy.

These apparent variations from the stated theme of Chapter 1 lead to the following questions about the effects of the distributional system:

(1) Do districts with many poor children indeed have "special educational needs", and is funding for them equal to that in other districts? In other words, is low achievement in a district correlated with large amounts of poverty, and do low-achieving districts have funding to run programs equivalent to those in other districts?

(2) To what extent are compensatory education services concentrated in the poorest districts? For example, do inner city children have more Chapter 1 programs available to them than students from less poor areas, or do they have less due to cost or other reasons?

(2) Are state compensatory funds associated with particular patterns of distribution of Chapter 1 funds within individual districts?

(3) Are local decisions functions of external factors? Total amount of other funds available or educational need, as mentioned above, might influence decisions on what kinds of compensatory programs are warranted. As well, organizational and demographic factors may also influence decisions. For example, urban and rural districts have higher costs in funding specialized programs than suburban ones; also, the experience of poverty in these environments may have different educational effects.

To answer these questions, a study of allocation and distribution patterns in New York State school districts was done. Factors examined included state and district allocation practices, financial resources from federal, state, and local levels, demographic factors including population, poverty, and population density, and decisions at the local level.

Method

Data were collected on selected school districts in New York State. Districts were chosen to reflect a range in poverty rates; the rates of those selected were below 3%, 10.0 to 10.9% and 17.0 to 17.9%, and above 21% (according to the 1986 New York State School District Gazetteer). In addition, most districts in several counties in Central New York were chosen for their proximity, in case more in-depth information was needed. These methods yielded 165 districts. Since "save-harmless" districts receive substantially more money per eligible student than the state standard, all 15 save-harmless districts were dropped from the analysis. In addition, a number of smaller districts merged or had so few Chapter 1 students that BOCES or other districts administered their programs. Complete data on these districts were unavailable, so all 14 districts in this category were also dropped. This left 136 districts in the analysis. Poverty rates in the remaining districts ranged from 1.3 to 39.3%, with a mean of 15.0%, and standard deviation of 0.7%, which corresponded with state-wide figures.

Ideally, the dependent variable should be the percentage of poor, underachieving students served by Chapter 1 and PSEN programs in each district; however, this information is not available. The child poverty rate, achievement, and numbers served are public information, but the intersecting subset of these data are not measurable due to privacy laws. As a substitute, then, the number of students served in each district were examined by three different standards: first, the number of children served by Chapter 1 in all schools, compared to the number counted as economically eligible as measured by the federal formula; second, the number of children in all schools served by PSEN and Chapter 1 combined, compared to the number counted by the federal formula; a third measure compared the number in compensatory education in public schools to overall public school enrollment in the district (since private school enrollment figures were unavailable). The amount of money spent on Chapter 1 programs per participating student in the district

was directly proportional to the number served, because of standard allocations per child; therefore, this was a duplicate of the first measure, as was not used in the analysis of Chapter 1 distributions.

The following district-level data were collected to comprise independent variables:

(1) Amount of eligible children in the district, as counted by the New York State Education Department for the years 1985-86 and 1986-87, using the 1980 census figures (not including children in facilities for the neglected and delinquent, whose allocations are calculated differently). Since grants awarded run for three years, allocations can vary from year to year. The data from the years 1984-85 and 1987-88 were both incomplete; therefore, the average figures for the two years 1985-86 and 1986-87 were used.

(2) Number of students participating in Chapter 1 and PSEN programs in both public and private schools.

(3) Amount of Chapter 1 and PSEN money allocated to each district by the state Education Department (not including money for children in facilities for the neglected and delinquent). The figures for 1-3 are from the New York State Education Department's Division of Federal Programs.

(4) Type of district, based on population density--urban, rural, or suburban. Generally, a school was considered urban if the New York State Education Department classified it as such. (City school districts in New York do not vote on their budgets.) Districts which had joined the Rural Schools Cooperative were considered rural. Suburban districts were judged as such if they fell into neither of the other two categories, and were near a metropolitan area. Of the 131 school districts used, 85 are rural, 21 are urban, and 25 are suburban.

(5) School district public school enrollment.

(6) Revenues from the following sources: federal aid, state aid, local revenue, and total revenue from all sources.

(7) District tax rate and tax base. Information for numbers 6-8 are from the 1985-86 Financial Data for School Districts. These data do not vary much from year to year, so only one year's data was used.

(8) The percent of district pupils passing the state Pupil Educational Progress [PEP] test scores for reading and math, given to grades 3 and 6, and writing, given in grade 5, were weighted for the number of pupils taking the exams and averaged across the two years. These scores reflect the educational need in elementary schools, which contain most compensatory education programs. Similar standardized information is not available for the upper grades.

Data Analysis

The percent of students served by Chapter 1 and by all compensatory education programs in each district in relation to the number counted by federal formula was then calculated and regressed onto the following variables: log poverty rate; percent of public school enrollment served by Chapter 1 programs; federal

aid other than Chapter 1, state aid (PSEN and other), local revenue, and total revenue per enrolled pupil; school district size, as measured by the number of enrolled students in public school (private school enrollment by school district was not readily available); number of participants in private and public schools; total amount of Chapter 1 money; type of district; district tax rate and tax base; and PEP test scores. The regression was done on MYSTAT, a form of SYSTAT. Logs of poverty, enrollment, and number of poor children counted by the federal formula were used to prevent non-linearities in the regression model. Factors were analyzed individually first, and then combined to form a multiple regression model. They were also analyzed by type of district.

Three school districts were consistently named as outliers by the MYSTAT program with studentized residuals greater than 4. These remained significant at the .01 level even after Bonferroni corrections for multiple tests. Removing them caused a small, non-significant change in the relationships of covariates, reducing the mean error, so they were omitted from the regressions performed.

Results

Tables showing average values on the statistics collected, and regression coefficients follow this general discussion. Significance levels are often higher for rural districts because of their greater number.

Poverty:

Of all single factors, poverty rate had the strongest association with the relative number of those counted who were served by Chapter 1. The high negative relationship seen means that raising the poverty rate from 15% (the average) to 20% lowers the percent served from 108% of those counted to 91%. The higher the poverty rate, the fewer counted children served. The effect was strongest in rural districts and weakest in urban ones.

An even higher negative relationship was observed comparing the number served by Chapter 1 and PSEN programs taken together. PSEN aid is aimed at districts via educational, not economic, criteria; however, educational targeting seems also to direct money to poor districts.

The high cost of providing services and/or the opportunity to concentrate services on those most in need may be operating in high-poverty districts. Given the lower level of achievement in these districts, most minor academic difficulties can probably be addressed in regular classrooms. As well, the small size of many of the rural districts may give an opportunity for the unserved to receive extra attention in the regular classroom, thus reducing the need for Chapter 1 services. In these circumstances, Chapter 1 and PSEN programs may tend to be smaller, more intense, and geared to those more in need. Indeed,

reducing the number served automatically increases the amount spent per pupil in Chapter 1 programs because districts receive money in direct proportion to the number counted.

The effect may be most pronounced in rural schools, because the costs of having a specialized teacher who does not have a full caseload in a single school is very high. Larger suburban and city districts would have more schools where a Chapter 1 teacher could remain in one building all day; thus their costs would be lower.

As well, in examining the number of CE students a district has relative to enrollment, poverty was again found to be the most significant factor. This time, however, the effect was positive, and was the strongest for suburban districts, and weakest for urban ones. In other words, more poverty was associated with greater percentages of enrolled pupils in CE programs. This is natural given the poverty base of Chapter 1.

Type of district:

Urban and rural districts served a significantly smaller number of students than suburban ones (b(urban) = -.318, p = .005; b(rural) = -.205, p = .019; b(suburban) = 0.229, p = .007); however, this effect disappeared when poverty was controlled for (bs were around -.05, ps were 0.35 to 0.40). Therefore, the increased poverty in urban and rural districts better explains the smaller percentage of eligible students served in those districts.

District size:

As measured by enrollment, district size was unrelated to either the number of Chapter 1 participants or compensatory education participants, as a percent of those counted by the formula. This is contrary to previous research by Vescera, et.al., and Smith.

Enrollment was a significant factor, however, in the proportion of all students in CE programs. The negative relationship was seen in rural and suburban districts; the larger enrollment, the smaller proportion of all students took part in CE. Urban districts displayed a non-significant trend in the other direction: larger districts contained more CE pupils.

This trend can be understood in that larger rural and suburban districts, and smaller urban ones, tend to have less poverty and higher achievement than others in their categories, thus reducing educational need in these districts.

Number of low-income students:

Previous research has argued for the effects of "lumpiness" and economies of scale. The claims are that districts with small numbers of "eligible" children will tend not to serve them since it is so expensive to serve only a few. Districts with large numbers enjoy economies of scale and can serve relatively more. Support for this argument is certainly found here in the strong negative relationship of the percent served with the number

counted in rural schools, a smaller, barely significant effect in suburban schools, and a much smaller one in urban schools.

Achievement:

As measured by PEP test scores, a small, non-significant, negative relationship was seen between the percentage served and district achievement levels, but the size and direction of the effect tended to vary by district type and subject matter. In particular, reading scores showed the greatest relationship with poverty ($b=-.071$, $p < .0001$), and therefore percentage served in rural districts. Writing and math scores showed non-significant relationships with poverty, but writing was most highly correlated with numbers served in suburban districts.

This trend can be understood in that higher-achieving districts had less educational need and less poverty. Because of the overall high academic level, even minor academic difficulties may be more easily addressed by special programs, and these districts also have enough local revenue to supplement their state and federal funds.

Stronger relationships were seen in the percentage of poor children seen in all compensatory programs, and in the proportion of all students involved in compensatory education. This reflects the achievement base of PSEN, whereby money is given for remediation, based on PEP test results.

A just barely significant positive relationship was seen in the percentage of counted students served by Chapter 1. More PSEN money per participant may mean that more funds are available to expand Chapter 1 and PSEN programs. The amount of PSEN money per participant had a small, non-significant effect on proportion of students in compensatory education in urban districts, and a just barely significant one in rural districts. Since these districts have the least local revenue and the most educational need, any extra money may have more importance in determining program size in these districts. Parallel findings were observed by measuring the amount of Chapter 1 money available per Chapter 1 participant.

The amount of Chapter 1 money per participant was not tested for the other two dependent variables since it was the same measure as the percentage of Chapter 1 eligible students served.

Other financial resources available:

The amount of local revenue available had a strong positive association with the percent of poor children served by Chapter 1, especially for rural districts. This effect was least pronounced for urban districts. It seems that increased local revenues give districts additional funds to expand programs to include more students. As well, local revenue was very closely associated with poverty and achievement; therefore, districts with more local monies have less educational need, and thus will serve more of their "eligible" students.

A negligible effect was seen for urban and suburban districts for the other two dependent variables, which included

PSEN programs. This reflects the educational base of PSEN programs.

Rural districts showed stronger relationships between local revenue and all three dependent variables. The relationship between percent served by Chapter 1 and local revenue was positive, but a negative relationship existed with the proportion of all students in compensatory education. Again, one possibility is that rural districts would be the most sensitive to cost factors.

The tax rate, rather than the tax base, accounted for most of the variance in the relationships seen. Particularly in rural districts, the tax rate is closely tied to poverty rates: districts with more poverty have significantly lower tax rates by my analysis, whereas the relationship with tax base is not so clearcut.

State aid other than PSEN was less significant a factor than local revenue for the percent of counted children served, but operated in similar ways. State aid formulas account for local effort in New York State, and thus, like local revenue, has a close association with poverty.

State aid's association with the proportion of all students served by CE is positive, and is the third most significant factor. Again, more state aid implies more poverty, and lower test scores, making bigger CE programs necessary.

Combined factors:

Taken all together, these factors combined to form highly predictive models of all three dependent variables. The relative importance of factors often changed when all were combined because of high correlations between factors. The simplest models consistent with the highest predictive power were determined by a backward stepwise regression, and can be seen in Table 2, with factors ranked in importance.

The percent of Chapter 1-eligible students served can be seen to be more closely related to the size and funding of PSEN programs, in which additional students can be served. The size of the district and number of counted children, which determine the costs involved, are next most important. Poverty and achievement are next, and involve the same possible reasons as discussed above. Other resources are least important in determining the percentage served in this model, perhaps because of their high correlation with poverty.

The complete model for the number served by all CE relative to the number counted as poor again shows a strong influence of PSEN programs size, number counted, and enrollment. This time, local revenue and poverty are less important. Achievement scores and other state aid were found to add negligible power to the model.

The proportion of all students who participated in CE was determined quite differently: Enrollment was most important, with amount of money per pupil next, followed by number counted

by formula, followed by state aid and then achievement. Poverty and local revenue did not increase the model's power.

Breakdown by type of district was not done for these complete models because of the small sample size relative to the number of factors.

Conclusions:

Although most local CE officials claim that program size depends on the educational need of individual students, a different impression is given by these results. The relationships noted above do not necessarily determine causality; however, their presence indicates that local decisions may be influenced by other factors, and similar districts tend to operate in similar ways.

The most important finding is that high poverty districts seem to run smaller, more expensive programs in New York State. Whether this is due to cost factors or local educational philosophy can not be determined by these data: further exploration at the local level is needed. It is clear, however, that cost factors are closely related to local decisions, and so may be causal. Further investigation is also needed here.

Achievement levels in these districts worked in a more complicated fashion, as mentioned above. It is therefore less clear if decisions about how many to serve could be based on aggregated achievement levels.

Further research will attempt to elucidate causality in these relationships by interviews with state and local officials, and comparisons with other states.

Table 1
District Characteristics

	Rural	Urban	Suburban	Total
Child poverty (1980 Census)	16%$_a$	18%$_a$	7%$_b$	15%
Poor children counted	182$_c$	3182$_d$	335$_c$	692$_e$
Public school enrollment	1105e	10,361$_f$	3539$_e$	3053$_e$
PEP Test Scores (New York State standardized tests):				
Reading	88$_e$	81$_h$	90$_e$	87
Math	94	89	94	93
Writing	90	87	92	90
Total PSEN and Chapter 1 participants[a] (as % of counted, above):	130%	106%	179%	135%
Chapter 1 students	66%	60%	83%	68%
PSEN students	63%	46%	96%	67%
Total PSEN and Chapter 1 participants (as % of enrollment)	21%	24%	16%	20%
Chapter 1	12%	14%	8%	11%
PSEN	9%	10%	8%	9%
Total Compensatory Education money per participant	$1745	$1851	$1328	$1677
Chapter 1	882	961	796	878
PSEN	863	856	532	799
Total Revenue per pupil (other than C.1 and PSEN):	5048	5207	6580	5366
Local	2306$_i$	2438$_i$	4412$_j$	2729
State aid (other than PSEN)	2640	2555	2093	2522
Federal aid (other than C.1)	102$_k$	214$_i$	75$_k$	115$_k$
Tax Rate(per $1000 full value)	1.61$_e$	1.96$_e$	2.51$_h$	1.84$_e$
Tax Base(per enrolled student)	123	103	179	131

*Non-matching subscripts indicate significantly differing values.
Sources: New York State School District Gazetteer, 1986. New York State Education Department records, 1985-87. Financial Data for School Districts, 1985.

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[a]. Percentages of over 100% indicate that more students are being serviced than were counted by the 1980 census; see Footnote 2 for further explanation.

Table 2
Regression Coefficients-Simple Regressions

Independent Variable		Dependent Variable: Chapter 1 students as a % of # counted		Dependent Variable: All CE students as a % of # counted		Dependent Variable: All CE students as a % of # enrolled	
		R	b	R	b	R	b
Log poverty rate	Urban	.372	-.244	.461	-.754*	.224	.068
	Rural	.585	-.224***	.662	-.842***	.586	.077***
	Sub	.474	-.225**	.529	-.552**	.742	.132***
	Total	.568	-.212***	.640	-.685***	.635	.085***
Local Revenue	Urban	.166	-.000	.171	-.000	.011	.000
	Rural	.330	.000**	.153	.000	.341	-.000**
	Sub	.236	.000	.117	-.000	.135	.000
	Total	.336	.000***	.170	.000	.224	-.000*
Tax Base	Urban	.189	-.001	.227	-.003	.069	-.000
	Rural	.146	.000	.032	-.000	.171	-.000
	Sub	.009	-.000	.107	-.001	.345	.000
	Total	.138	.000	.017	.000	.029	-.000
Tax Rate	Urban	.136	.078	.217	.308	.293	.078
	Rural	.306	.180**	.333	.649**	.447	-.091***
	Sub	.246	.157	.008	-.011	.074	-.018
	Total	.327	.166***	.285	.414**	.275	-.051**
State Aid other than PSEN	Urban	.012	-.000	.080	.000	.200	.000
	Rural	.237	-.000*	.089	-.000	.398	.000***
	Sub	.291	-.000	.026	-.000	.352	.000
	Total	.268	-.000**	.122	-.000	.374	.000***
Log # counted	Urban	.287	-.049	.276	-.118	.217	.017
	Rural	.465	-.168***	.466	-.557***	.164	.020
	Sub	.425	-.197*	.467	-.478*	.114	.020
	Total	.333	-.083***	.355	-.252***	.182	.016*
Log enrollment	Urban	.175	-.037	.128	-.067	.208	.021
	Rural	.033	.012	.142	.170	.461	-.057***
	Sub	.082	.039	.087	.092	.674	-.121***
	Total	.029	.008	.066	.051	.276	-.027**
PEP test scores (combined)	Urban	.295		.274		.428	
	Rural	.160		.185		.422**	
	Sub	.372		.285		.876***	
	Total	.234		.258*		.550***	

* denotes p <.05 ** denotes p <.01 *** denotes p <.0001

Independent Variable		Dependent Variable: Chapter 1 students as a % of # counted		Dependent Variable: All CE students as a % of # counted		Dependent Variable: All CE students as a % of # enrolled	
		R	b	R	b	R	b
PSEN money per PSEN participant	Urban	.358	-.000	.522	-.001*	.364	-.000
	Rural	.156	-.000	.309	-.001**	.273	-.000*
	Sub	.158	-.000	.314	-.001	.026	-.000
	Total	.220	-.000*	.364	-.001***	.140	-.000
Chapter 1 money per participant	Urban					.507	-.000*
	Rural					.148	-.000
	Sub					.081	.000
	Total					.070	-.000
PSEN students as a % of enrollment	Urban	.686	2.249**	.830	6.792***		
	Rural	.065	.351	.278	5.010**		
	Sub	.240	-1.355	.051	-0.635		
	Total	.020	- .109	.179	2.744*		

Complete models, with factors in order of importance:

	b	R
Chapter 1 participants, as a % of # counted:		
PSEN students as a % of enrollment	1.649	.646***
log of # counted	-.183	
log of enrollment	.148	
PSEN money per participant	.000	
poverty rate	-.095	
achievement--reading -.005, math -.003, writing .001		
state aid	-.000	
local revenue	.000	
Compensatory Education participants, as a % of # counted:		
PSEN students as a % of enrollment	7.438	.819***
log of # counted	-.700	
log of enrollment	.652	
local revenue	-.000	
log of poverty	-.299	
PSEN money per PSEN participant	-.000	
Compensatory Education participants, as a % of enrollment:		
log of enrollment	-.105	.871***
CE money per participant	-.000	
log of # counted	.094	
state aid other than PSEN	.000	
PEP test scores--read -.001, write -.002, math -.001		

* denotes p <.05 ** denotes p <.01 *** denotes p <.0001

References

Alexander, Kern, and Alexander, M. David (1985), American Public School Law, 2nd edition. U.S.A.: West Publishing Co., pp.726-35.

Anderson, Judith I., and Stonehill, Robert M. (1986), "Twenty Years of Federal Compensatory Education: What Do We Know About the Program?" Paper given at the annual meeting of the American Educational Research Association, San Francisco, April, 1986. Eric fiche ED269902.

Annual Evaluation Report, 1984, 1985. Washington, D.C.: U.S. Department of Education, Office of Planning, Budget, and Evaluation.

Apling, Richard (1982), The Influence of Title I Budget Cuts on Local Allocation Decisions: Some Patterns from Past and Current Practices. A Special Report from the Title I District Practices Study. Washington, DC: Advanced Technology. ERIC fiche number ED 243 238.

Bailey, Stephen, and Mosher, Edith (1968). ESEA: The Office of Education Administers a Law. Syracuse, N.Y.: Syracuse University Press.

Berke, Joel, and Kirst, Michael, Eds. (1972). Federal Aid to Education. U.S.A: D.C. Heath.

Birman, Beatrice, et. al. (1987) The Current Operation of the Chapter 1 Program. National Assessment of Chapter 1 by OERI. Washington, D.C.: Government Printing Office.

Carter, Launor (1984), "The Sustaining Effects Study of Compensatory and Elementary Education", Educational Researcher, v.13 (7-Aug.-Sept.), pp.4-13.

Committee on Education and Labor, U.S. House of Representatives (1987). Targeting Students for Chapter 1 Services: Are the Students in Greatest Need Being Served? Document 100-F. Washington, D.C.: Government Printing Office.

The Condition of Education: A Statistical Report (1985). Washington, DC: U.S. Department of Education.

Darling-Hammond, Linda, and Marks, Ellen (1983), The New Federalism in Education. U.S.A: Rand Corporation.

Digest of Education Statistics, 1985-86, 1986-87. Washington, DC: OERI, US Department of Education Center for Statistics.

Education Statistics, New York State (1987). Albany, NY: University of the State of New York, State Education Department, January.

Financial Data for School Districts (1985). Albany, NY: New York State Comptroller's Office.

Gaffney, Michael, and Schember, Daniel (1982), Current Title I School and Student Selection Procedures and Implications for Implementing Chapter I, ECIA. A Special Report from the Title I District Practices Study. U.S.A.: Advanced Technology. ERIC fiche number ED 243 237.

_____ (1982), The Effects of the Title I Supplement-not-Supplant and Excess Cost Provisions on Program Design Decisions. A Special Report from the Title I District Practices Study. U.S.A.: Advanced Technology. ERIC fiche number ED 243 238.

Ginsburg, Alan, et. al. (1985), "Is the Federal "Chapter 1" Education Formula Equitable?", Journal of Education Finance, v.10 (3-Winter), pp. 360-74.

Goertz, Margaret; Milne, Ann; and Gaffney, Michael (1987). "School Districts' Allocation of Chapter 1 Resources". Paper presented at AERA Annual Meeting, 1987. Eric Document 282309.

Heinold, Dan (1983), "Impact of Federal Monies on Equity Among States in K-12 Public School Finance", Journal of Education Finance, v. 8 (Spring), pp. 475-489.

Kennedy, Mary; Jung, Richard; and Orland, Martin (1986). Poverty, Achievement and the Distribution of Compensatory Education Services. An Interim Report from the National Assessment of Chapter 1, OERI. Washington, D.C.: Government Printing Office. Eric Document 271546.

Levin, Henry (1982), "Equality of Educational Opportunity", Rethinking the Federal Role in Education, special issue of the Harvard Educational Review, v.52 (4-November), pp. 451-2.

McLaughlin, Milbrey (1978), "Implementation of ESEA Title I: A Problem of Compliance", Chapter 9 in Mann, Dale, ed.(1978), Making Change Happen?. U.S.A.: Teachers' College Press, pp. 162-180.

National Institute of Education (NIE) (1977). Title I Funds Allocation: The Current Formula. Washington, D.C.: Government Printing Office.

Nelson, F. Howard (1983), "Are the Poor Concentrated in Poor School Districts?", Educational Evaluation and Policy Analysis, v.5 (1-Spring), pp. 19-30.

New York State Office of the State Comptroller (1986). Financial Data for School Districts, 1985-86. Albany, N.Y.: New York State Comptroller's Office.

New York State Education Department (1986). Public School Enrollment and Staff, New York State, 1985-86. Albany, N.Y.: New York State Education Department.

New York State School District Gazetteer, 1986. Albany, N.Y.: Nelson Rockefeller Institute of Government.

Orland, Martin (1988), "Relating School District Resource Needs and Capacities to Chapter 1 Allocations", Educational Evaluation and Policy Analysis. v. 10(1), pp. 23-26.

Orland, Martin and Apling, Richard (1986), "The Impact of Federal Compensatory Education Budget Changes on the Intensity of Services Provided", Journal of Education Finance, V. 12 (Summer), pp.122-39.

Paller, Alan, and Gutmann, Babette (1977), Current Subcounty Allocation Practices: The Subcounty Allocation Study, v. I. Washington, D.C.: Applied Urbanetics, Inc. ERIC fiche ED166 323.

Peterson, Paul (1983), Making the Grade. U.S.A: 20th Century Fund.

Sjogren, Jane (1979), "An Analysis of Title I Costs at the District Level Under Regular and Alternative Allocation Procedures", Journal of Education Finance, 5 (Fall), pp. 173-86.

Smith, Marshall (1986), Selecting Students and Services for Chapter 1. Stanford, Cal.: Center for Educational Research at Stanford.

Smith, Stephen, Gutmann, Babette, and Paller, Alan (1977), Impact of Variations in Subcounty Allocation Procedures on Title I ESEA Allocations to School Districts. The Subcounty Allocation Study, v. II. Washington, D.C.: Applied Urbanetics, Inc. ERIC fiche ED166 324.

Sumner, Gerald, et.al. (1979), An Analysis of the Cost and Effectiveness of Compensatory Education. Technical Report #7 from the Study of the Sustaining Effects of Compensatory Education on Basic Skills. Washington, D.C.: RMC Research Corporation. ERIC fiche ED213 786.

The Education Almanac (1987-88). U.S.A: National Association of Elementary School Principals. Pp. 19-20.

U.S. Commission on Civil Rights (1982), Statement on the Fiscal Year 1983 Budget, Washington, D.C.: Clearinghouse Publications.

The Uses of State Administered Federal Education Funds (1973-83), v. 1-8. Washington, D.C.: U.S. Office of Education.

Vescera, Lawrence; Collins, Judy; Warledo, Thomasine; and Mitchell, Gwendolyn (1978). "An Examination of the Flow of Title I and State Compensation Aid and their Effect on Equalization in Four States: Florida, New Jersey, New York, and Texas". Paper No. 10. Denver, Col.: Education Commission of the States. Eric Document 156774.

Washington Research Project (1969). Title I of ESEA: Is It Helping Poor Children? Washington, D.C.: Washington Research Project and NAACP Legal Defense and Educational Fund, Inc.

White, Karl (1982), "The Relation Between Socioeconomic Status and Academic Achievement", Psychological Bulletin, v.91 (3), pp. 461-281.